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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,418	06/05/2001	Herbert Benson Scher	RIA 57700	5799

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GREENSBORO, NC 27409

EXAMINER

FUBARA, BLESSING M

ART UNIT	PAPER NUMBER
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1618

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,418

Applicant(s)

SCHER ET AL.

Examiner

Blessing M. Fubara

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 28-31 and 33-44 is/are pending in the application.
- 4a) Of the above claim(s) 33, 35, 36, 38 and 39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-32, 34, 37 and 40-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner acknowledges receipt of amendment and remarks filed 12/12/05. Claims 28-31 and 33-44 are pending. Claims 33, 35, 36, 38 and 39 are withdrawn from consideration.

Observation

It is noted that in the election requirement mailed 3/14/05, applicants elected formula IV for prosecution and a question that the structure may not have been disclosed in the specification as originally filed was raised. However, applicants refer the examiner to PCT/GB01/02452 and WO 01/94001 without indicating the relationship of the PCT applications and the WO publication to the examined application. Applicants are respectfully requested to indicate what the relationship of the PCT/GB01/02452 and WO 01/94001 to the examined application so that examiner would make a reasonable assessment of the relationship. Since applicants have not referenced the support for the structure IV in the specification as originally, the introduction of formula IV is considered new matter and a new matter rejection is made below.

Secondly, the amendments to the claims have incorporated many surface modifying agents that are not elected into claims 34, 43 and new claim 44. The compounds 1A-1D, IIA-IIC and IIIA-IIID comprise many compounds that would place tremendous burden on the examiner to search when structure IV is found allowable and when a search is necessary for the other compounds. The election requested the applicants to elect single disclosed specie for prosecution on the merit. However, applicants' amendment would complicate the search and consideration process for compounds 1A-1D, IIA-IIC and IIIA-IIID. The election requirement applies to the varied and various compounds of 1A-1D, IIA-IIC and IIIA-IIID.

Examination and consideration is directed to the elected species of formula IVA.

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Regarding Maintaining the election requirement: The election requirement was maintained in light of the claims where many and varied surface modifying compounds are claimed as stated above. The claiming of these many and varied compounds places tremendous burden on the examiner to search for all the possible structural variations of compounds 1A-1D, IIA-IIC and IIIA-IIID that are surface modifying compounds for the resins formed by a) or b).

Claim Objections

1. The objection of claim 34 under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n) is withdrawn in view of the amendment to claim 34.

Claim Rejections - 35 USC § 112/New Matter

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 28-31 and 33-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitation of formula IVA is new matter because there is no support for the structure in the specification as originally filed. Applicants have not referenced the section of the original specification that supports the formula IVA.

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4. Claim 43 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 43 recites the limitation "the soil mobility" in line 1. There is insufficient antecedent basis for this limitation in the claim. Although, claim 34 has been deleted from the claim 43, there is still no antecedence for "the soil mobility" because the claim has not previously referred to the mobility of the soil. Correction is respectfully requested.

The omission of claim 32 in the last office action gives rise to the rejection below

Claim Rejections - 35 USC § 102

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 28-31, 34, 37 and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Mikami et al. (US 4,465,756).

Mikami discloses polyurea or polyurethane polythiourea capsule shell and a process of preparing the shell (column 4, lines 27-61); the shell material is a polycondensation product of polyisocyanate, polyol and water or polycondensation product of polyisocyanate, polyol and polyamine (column 4, lines 62-65); droplets of toner particles and dye materials are encapsulated in the core of the capsule shell (abstract; column 4, lines 66-68; column 5, lines 8-11; column 8, lines 20-43; column 10, lines 16-50). The outer surface of the shell is provided with surface active agent selected from the group consisting of sulfonate, carboxylate, phosphate, amine, quaternary ammonium salt and pyridinium salt (column 3, lines 60-65). The surface-active

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agents can be anionic and an example is sodium tetradecylamidophenylsulfonate (column 11, lines 49-57), which reads on formula IVA of the instant claim.

8. Claims 28, 29, 34 and 40-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Seitz et al. (US 5,925,595).

Seitz discloses a process of preparing a microencapsulated composition and the method comprises combining triisocyanate, aliphatic diisocyanate and polyamine and incorporating agricultural chemical such as herbicide within the microcapsule (abstract; column 2, line 21 to column 4 line 20). Sulfonated naphthalene-formaldehyde condensates, modified starches (column 4, lines 10-20) and calcium and sodium lignosulfonates (column 8, lines 13 and 14) are colloids that are included in the polyurea shell.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mikami et al. (US 4,465,756).

Mikami is described above. Mikami does not disclose the specific ratio of the total – NCO moieties in the wall-forming material to the total reactive moieties in the surface-modifying compound. However, there is no demonstration that the recited ratio provides unexpected result to the resin formed by the reaction. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare the composition of

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Mikami according to the process of Mikami. One having ordinary skill in the art would have been motivated to use the specific amounts of the isocyanate compound and the surface-modifying agent that is expected to yield the desired resin for encapsulating the active agent.

Response to Arguments

11. Applicants' arguments filed 12/12/05 have been fully considered but they are not persuasive. Regarding the compound of formula (IVA), which as per applicants is represented by one example whose structure is provided at page 23 of the communication, it is noted that the structure disclosed by the prior art meets the limitation of formula (IVA). If applicants want to limit structure (IVA) those structures applicants say are representations of structure (IVA), then, it is suggested that applicants claims those compound by using Markush language to claim what applicants regard as the inventive structure (IVA).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blessing M. Fubara whose telephone number is (571) 272-0594. The examiner can normally be reached on 7 a.m. to 3:30 p.m. (Monday to Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Blessing Fubara
Patent Examiner
Tech. Center 1600

A handwritten signature in black ink, appearing to read "mfubara", is written over the printed name "Blessing Fubara". The signature is stylized and cursive.